GLENWOOD AVENUE RECLAMATION

Project Feasibility Report
City Project Number 10521

March 3, 2016



	ADLE OF CONTENTS	
I. T/	ABLE OF CONTENTS TABLE OF CONTENTS	2
II.	CERTIFICATION PAGE	
III.	PROJECT CONTACTS	3
IV.	EXECUTIVE SUMMARY	4
V.	PROJECT INTRODUCTION	4
VI.	EXISTING CONDITIONS	4
A.	STREET	4
B.	OTHER UTILITIES	5
VII.	PROPOSED IMPROVEMENTS	5
A.	STREET	5
B.	OTHER UTILITIES	5
VIII.	RIGHT-OF-WAY AND EASEMENT	5
IX.	APPROVALS/PERMITS	5
X.	PROJECT COST ESTIMATE AND FINANCING	6
XI.	POSSIBLE SCHEDULE	6
XII.	CONCLUSION AND RECOMMENDATIONS	6
XIII.	APPENDIX	7
A.	FIGURE 1: EXISTING LAYOUT OF Glenwood Avenue	7
B.	ENGINEERS ESTIMATE	8
C.	PRELIMINARY ASSESSMENT ROLL	ę

Project Feasibility ReportGlenwood Avenue Reclamation

Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

II. CERTIFICATION PAGE

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly registered professional engineer under the laws of the state of Minnesota.

Michael J McCarty, PE	
Reg. No. 45505	
Date	

III. PROJECT CONTACTS

TITLE	NAME	PHONE	EMAIL
Mayor	Eric Anderson	507.386.1750	eanderson@ mankatomn.gov
Councilor at Large	Christopher Frederick	507.382.7299	cfrederick@ mankatomn.gov
Councilor Ward 1	Karen Foreman	507.382.4256	kforeman@ mankatomn.gov
Councilor Ward 2	Tamra Rovney	507.388.3326	trovney@ mankatomn.gov
Councilor Ward 3	Mark Frost	507.387.3169	mfrost@ mankatomn.gov
Councilor Ward 4	Jason Mattick	507.720.8787	jmattick@ mankatomn.gov
Councilor Ward 5	Trudy Kunkel	507.317.6990	tkunkel@mankatomn.gov
City Manager	Patrick Hentges	507.387.8695	phentges@ mankatomn.gov
City Engineer	Jeffrey Johnson	507.387.8640	jjohnson@ mankatomn.gov
Quality Assurance Manager	Michael McCarty	507.387.8643	mmccarty@mankatomn.gov
Project Operations	Jim Tatge	507.387.8504	jtatge@ mankatomn.gov
Project Designer	Lucas Pederson	507.387.8541	Ipederson@mankatomn.gov
Project Representative	Todd Wiens	507.387.8509	twiens@mankatomn.gov

Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

IV. EXECUTIVE SUMMARY

Glenwood Avenue was constructed in two different sections, the area from Parkway Avenue to Agency Road was constructed during the 1990's, and Hoffman Road, between Agency Road and Victory Drive was constructed during the 1970's.

Suggested improvements include bituminous pavement reclamation, cement stabilizing the base, and new bituminous pavement of approximately 4100-feet of bituminous pavement to improve rideability and increasing service life also included in this project is to install lighting from Fifth Street to Victory Drive along the north side of Glenwood Avenue along the existing bike trail.

The estimated cost of these necessary improvements is approximately \$1,070,400.

From an engineering standpoint, the proposed improvements are necessary, cost effective, and feasible. This can best be accomplished by letting competitive bids for the work. It is recommended that the council accept this project feasibility report and schedule a preliminary assessment hearing for the proposed improvements.

V. PROJECT INTRODUCTION

The recommended pavement and utility improvements on Glenwood Avenue between the intersection of Parkway Avenue and the intersection of Victory Drive are being proposed for the summer of 2016. In accordance with Minnesota Statutes, Chapter 429, the City Council has authorized the preparation of a project feasibility report to define the scope and determine the reasonableness of the project. The specific objectives of this preliminary engineering report are to:

- Evaluate the need for this project.
- Determine the necessary improvements.
- Provide information on the estimated costs for the proposed project.
- Determine the project schedule.
- Determine the feasibility of the proposed project.

This project, as proposed, 4100-feet of bituminous pavement with 32- to 44- foot road width's and street lighting. Specific items that will be included in the construction are as follows:

- Reclamation of 4100-feet of existing bituminous street
- · Cement stabilization of the aggregate base
- 5" of bituminous pavement
- Install street lighting

VI. EXISTING CONDITIONS

A. STREET

Glenwood Avenue from Parkway Avenue to Victory Drive has a bituminous pavement that was constructed in the 1970's and 1990's with a pavement rating of 78, which is considered fair. The road surface has several areas that are suffering from structural deficiencies. A majority of these areas are on the curves and are rapidly deteriorating. Glenwood Avenue has seen a growth in traffic levels that was not anticipated at the time of construction, which is causing accelerated

Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

deteriorating of the pavement in critical locations. The existing street layout for Glenwood Avenue is located in Figure 1 in the Appendix.

B. OTHER UTILITIES

Other non-municipal-owned utilities may be present in the right-of-way. These include natural gas, electric, and telecommunications. The condition of these utilities is unknown and their replacement is beyond the scope of this report.

VII. PROPOSED IMPROVEMENTS

A. STREET

A major reconditioning project is proposed for Glenwood Avenue. The existing pavement with be reclaimed, with excess reclaimed material being milled off the road section. The remaining aggregate base will be cement stabilized to provide additional structural strength to the pavement section. Finally four inched of new bituminous pavement will be installed. The proposed street cross section and pavement section are located in Figure 1 in the Appendix.

Any temporary damages that occur to the boulevard during construction will be repaired after the project with sod in all of the disturbed areas. Trees, bushes, and other vegetation located in the construction zone will be protected where possible; however, some trees and bushes may need to be removed as part of construction due to direct conflict with the proposed utilities or due to unavoidable root damage.

B. OTHER UTILITIES

The design of the proposed improvements will be coordinated with the owners of private utilities such as natural gas, electric, telephone, and cable television. A design coordination meeting will be held with all private utility companies to identify those utilities that are in conflict with the proposed improvements. Private utility companies will be requested to submit proposed designs and construction schedules for any relocation. The construction schedule for the proposed improvements will be coordinated with the utility relocation schedule to avoid unnecessary delays.

VIII. RIGHT-OF-WAY AND EASEMENT

No work will be taking place outside of the existing Glenwood Avenue right-of-way and no additional right-of-way or temporary construction easements are required.

IX. APPROVALS/PERMITS

Approvals and permits are required from various agencies for the construction of the project. They include:

City of Mankato-Land disturbance Permit

Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

X. PROJECT COST ESTIMATE AND FINANCING

Estimated projections for the cost of this project are summarized below. A detailed cost estimate is included at the end of the report.

ITEM	COST
Street	\$820,638.80
Storm Water	\$16,724.05
Watermain	\$1,543.50
Sanitary Sewer	\$0.00
Construction Contingency	\$83,890.64
TOTAL CONSTRUCTION	\$922,796.99
Admin/bonding	\$55,367.82
Engineering	\$92,279.70
TOTAL PROJECT COST	\$1,070,444.51

Funding for the proposed improvements is shown in the table below.

FUNDING SOURCE	AMOUNT	PERCENT
Special Assessments	\$177,717.15	17%
MSAS	\$793,623.76	74%
Water Utility	\$1,790.46	0%
Sewer Utility	\$0.00	0%
Storm Utility	\$97,313.14	9%
TOTAL FUNDS	\$1,070,444.51	100%

XI. POSSIBLE SCHEDULE

The following is a possible schedule for the proposed improvements on Glenwood Avenue Reclamation:

•	02/11/2016	Call for hearing
•	03/01/2016	Informational meeting
•	03/14/2016	Project feasibility hearing
•	04/11/2016	Preliminary assessment hearing
•	04/11/2016	Advertise for bids
•	05/13/2016	Bid opening
•	05/23/2016	Award bids
•	06/06/2016	Begin construction
•	08/19/2016	Final completion

11/14/2016 Levy final assessments

Repayment of assessments begins 01/01/2017

XII. CONCLUSION AND RECOMMENDATIONS

The existing conditions of Glenwood Avenue are unfavorable with only further deteriorations to come. If these road and utility improvements are not made, maintenance costs will continue to be an issue and failure of the road and system will occur. From an engineering standpoint, this project is cost

Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

effective, necessary, and feasible. The best way to accomplish this project is by letting competitive bids for the work. Feasibility is contingent upon City Council findings with respect to project financing.

We recommend the Council accept this project feasibility report, set a date for the preliminary assessment hearing, order the City Engineer to prepare final plans and specifications and instruct the City Manager to advertise for bids in accordance with the requirement of law.

XIII. APPENDIX

A. FIGURE 1: EXISTING LAYOUT OF Glenwood Avenue



Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

B. ENGINEERS ESTIMATE

CITY PROJECT NUMBER 10521 GLENWOOD AVENUE ENGINEERS ESTIMATE BID UNIT EST BID **CONTRACT ITEM** UNIT QTY PRICE PRICE **MOBILIZATION** LS 1.00 \$39,947.92 \$39,947.92 REMOVE CURB AND GUTTER LF 1825.00 \$3.94 \$7.185.94 SAWCUT BITUMINOUS PAVEMENT LF 620.00 \$3.58 \$2,219.91 TON 443.73 \$149.10 \$66,160.14 CEMENT STREET SWEEPER (WITH PICKUP BROOM) HR \$105.63 \$1,056.30 10.00 **FULL DEPTH RECLAMATION** SY 14791.11 \$2.52 \$37,273.60 BITUMINOUS PATCH SPECIAL SY 25.00 \$40.16 \$1,004.06 MILL BITUMINOUS SURFACE 2" SY 14791.11 \$4.20 \$62,122.66 COLD IN-PLACE RECYCLE BIT MIXTURE 14791.10 \$31,061.31 SY \$2.10 HAUL BITUMINOUS PAVEMENT RECLAMATION CY \$10.11 \$12,463,33 (LV) 1232.59 TYPE SP 12.5 WEAR CRS MIX (3,C) 1.5" THICK SY 14791.10 \$10.68 \$157,946.76 TYPE SP 19.0 NON WEAR CRS MIX (3,B) 2.5" THICK SY 14791.10 \$10.09 \$149,249.59 ADJUST VALVE BOX - WATER EΑ 6.00 \$257.25 \$1,543.50 31.00 ADJUST FRAME RING AND CASTING EΑ \$397.25 \$12,314.64 CONCRETE CURB AND CUTTER DESIGN B624 LF 1825.00 \$48,538.61 \$26.60 6" CONCRETE DRIVEWAY PAVEMENT SY 20.00 \$52.37 \$1,047.48 LIGHTING UNIT TYPE SPECIAL \$2,193.53 \$70,193.09 EΑ 32.00 LUMINAIRE (HPS) \$888.83 \$28,442.40 EΑ 32.00 LIGHT FOUNDATION DESIGN E EΑ \$669.38 \$21,420.00 32.00 2" NON-METALLIC CONDUIT LF 5800.00 \$4.08 \$23,690.10 UNDERGROUND WIRE 1 COND NO 4 LF 17400.00 \$2.49 \$43,299.90 CONNECT TO INPLACE SERVICE CABINET \$1,050.00 EΑ 3.00 \$3,150.00 TRAFFIC CONTROL LS \$4,961.53 \$4,961.53 1.00 RIGID PVC LOOP DETECTOR 6'X6' EΑ 4.00 \$740.25 \$2,961.00 STORM DRAIN INLET PROTECTION EΑ 28.00 \$157.48 \$4,409.41 **RAPID STABILIZATION METHOD 3 MGAL** 1.50 \$641.68 \$962.51 4" SOLID LINE YELLOW-EPOXY LF 8320.00 \$0.51 \$4,280.64

\$838,906.36

Glenwood Avenue Reclamation City Project Number 10521 City Of Mankato

C. PRELIMINARY ASSESSMENT ROLL

GLENWOOD AVENUE

Preliminary Assessment Roll City Project Number 10521

CC= Denotes Corner Credit Applied; SB= Denotes Setback; REAR=Denotes Rearage

CC= Denotes Comer Credit Ap	pplied; SB= Denotes Setback; F	KEAK=Deno	ies Realag	je		,	
				Frontage Ch	narge	Driveway	
						Approach	
				Residential	Nonresidential	@	Total
Parcel Number /	Property	Property	Front	Cost/ft	Cost/ft	\$76.00	Estimated
Owner / Address	Description	Class	Feet	\$41.50	\$61.50	\$93.09	Assessment
01.09.17.302.011	Not Platted	R	430.04	\$0.00	\$0.00	\$0.00	\$0.00
Real Property Trust	All of Northwest 4 of					0.00	
40 Hanten Dr	Southwest 4 of Park					SY	
	Exc Glencrest Add Sec 17						
Mankato, MN 56001	Twp 108 R 26						Not Assessed
	Glenwood Avenue						
01.09.17.304.001	Subdivision	NR	373.53	\$0.00	\$0.00	\$0.00	\$0.00
City of Mankato	Outlot A					0.00	
PO Box 3368						SY	
Mankato, MN 56002-3368							Not Assessed
01.09.17.326.006	Hanten Subdivision	R	10.00	\$0.00	\$0.00	\$0.00	\$0.00
Real Property Trust	Tract 6'x100'x37'x88' of 5		20.00			0.00	
40 Hanten Dr	& all of 6		REAR=			SY	
Mankato, MN 56001							Not Assessed
01.09.17.326.007	Hanten Subdivision	R	111.23	\$0.00	\$0.00	\$0.00	\$0.00
Kenneth G & Lynda K							
Koppelman	Lot 7		222.45			0.00	
35 Hanten Dr			REAR=			SY	
Mankato, MN 56001							Not Assessed

01.09.17.327.008	Oakwood Heights Addition	R	143.55	\$0.00	\$0.00	\$0.00	\$0.00
Meredith J Abdo	Lot 12		287.09			0.00	
95 Oakwood Dr			REAR=			SY	
Mankato, MN 56001							Not Assessed
01.09.17.327.009	Not Platted	NR	77.00	\$0.00	\$0.00	\$0.00	\$0.00
City of Mankato	Auditors Plat #6 Part Lot 2		157.00			0.00	
PO Box 3368	and Part Lot 13		CC=			SY	
Mankato, MN 56002-3368							Not Assessed
01.09.17.328.013	Oakwood Heights Addition	R	56.15	\$0.00	\$0.00	\$0.00	\$0.00
Brent A & Shanna M Wood	Lot 10		112.30			0.00	
90 Oakwood Dr			REAR=			SY	
Mankato, MN 56001							Not Assessed
01.09.17.328.014	Oakwood Heights Addition	R	127.01	\$0.00	\$0.00	\$0.00	\$0.00
Byron C & Karen S Mcgregor	Lot 11		254.01			0.00	
100 Oakwood Dr			REAR=			SY	
Mankato, MN 56001							Not Assessed
	Door And Dietemanns						
01.09.17.328.021	Addition	R	117.38	\$0.00	\$0.00	\$0.00	\$0.00
Gregory A & Michelle M							
Dembouski	South 20' of 10 and all of					0.00	
60 Oakwood Dr	Lot 11					SY	
Mankato, MN 56001	B 4 1 B; /						Not Assessed
04 00 47 000 000	Door And Dietemanns	R	04.54	#0.00	# 0.00	CO OO	\$0.00
01.09.17.328.022 Gregory A & Michelle M	Addition	ĸ	94.54	\$0.00	\$0.00	\$0.00	\$0.00
Dembouski	Lot 12					0.00	
60 Oakwood Dr	LOC 12					SY	
Mankato, MN 56001							Not Assessed
Wallacto, Wild Good I	Door And Dietemanns						1101 //3303360
01.09.17.329.008	Addition	R	64.74	\$0.00	\$0.00	\$0.00	\$0.00
Brian C Halvorson	Excluding North 12' of		144.74	* -		0.00	
145 Glenview Ave	Lots 13 and 14		CC=			SY	
Mankato, MN 56001							Not Assessed

	Registered Land Survey						
01.09.17.329.019	27	R	112.00	\$0.00	\$0.00	\$0.00	\$0.00
City of Mankato	Lot D					0.00	
PO Box 3368						SY	
Mankato, MN 56002-3368							Not Assessed
	Registered Land Survey			_			
01.09.17.329.020	27	R	105.10	\$0.00	\$0.00	\$0.00	\$0.00
City of Mankato	Lot C					0.00	
PO Box 3368						SY	
Mankato, MN 56002-3368							Not Assessed
01.09.17.376.009	Not Platted	NR	1728.41	\$0.00	\$106,297.22	\$0.00	\$106,297.22
Glenwood Cemetery	37.70A in Southeast 4 & In					0.00	
711 Glenwood Avenue	Northeast 4 of Southwest					SY	
	Lying S of Glenwood Ave						
Mankato, MN 56001	Sec 17 Twp 108 R 26						
01.09.17.405.008	Caven-Springer Heights	R	87.00	\$0.00	\$0.00	\$0.00	\$0.00
<u> </u>	Lot 7 & Excluding						
Mark T & Kelly J Fleischer	Northwest		174.00			0.00	
210 Clover Ln	25' of 8 and Cloverlane		REAR=			SY	
Marilata MNI 50004	South of Line 25' South of						Not Assessed
Mankato, MN 56001	Center Block 4			*	**	* • • • •	Not Assessed
01.09.17.405.012	Auditors Plat 47	R	77.30	\$0.00	\$0.00	\$0.00	\$0.00
Fred Kelton & Dorothy Gage	Lot 4 and Tract 35'x120' of		154.60			0.00	
4 Petticoat Ln	Lot 5 Section 17		REAR=			SY	
Mankato, MN 56001	Township 108 Range 26						Not Assessed
01.09.17.405.013	Auditors Plat 47	R	81.00	\$0.00	\$0.00	\$0.00	\$0.00
Mark A & Teresa A Scheidel	Lot 1		162.00			0.00	
1 Petticoat Ln			REAR=			SY	
Mankato, MN 56001							Not Assessed
01.09.17.405.014	Auditors Plat 47	R	62.50	\$0.00	\$0.00	\$0.00	\$0.00
Curtis F Stanton	Lot 2 Excluding Street		125.00			0.00	
2 Petticoat Ln	Section 17 Township		REAR=			SY	
Mankato, MN 56001	108 Range 26				_		Not Assessed

01.09.17.405.015	Auditors Plat 47	R	120.65	\$0.00	\$0.00	\$0.00	\$0.00
John T & Natasha M O'Hara	Lot 3 Excluding Street	• •	241.30	ψ0.00	Ψ0.00	0.00	ψ0.00
3 Petticoat Ln	Section 17 Township		REAR=			SY	
Mankato, MN 56003	108 Range 26						Not Assessed
01.09.17.405.017	Caven-Springer Heights	R	49.00	\$2,033.50	\$0.00	\$0.00	\$2,033.50
Aaron J & Karisa C Glade	Northwest 25' of Lot 8 and	• •	98.00	ψ=,000.00	φοισσ	0.00	4 =,000.00
204 Clover Ln	Lot 9 Excluding RLS #136		REAR=			SY	
20 / 0.070. 2	and Part of Vacated						
Mankato, MN 56001	Clover Lane Block 4						
	Sunrise Heights						
01.09.17.406.009	Subdivision	R	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Mark G & Catherine J Probst	Undeveloped Lot B and					0.00	
310 Agency Rd	Lot 11					SY	
Mankato, MN 56001	Assess	ed under 84	4004 - Ager	ncy Road			Not Assessed
01.09.17.406.014	Atwood Terrace	R	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Peter S & Mary T Rettmer	Lot 24					0.00	
240 Terrace Dr						SY	
Mankato, MN 56001							Not Assessed
01.09.17.407.002	Nilas Addition	R	575.65	\$23,889.48	\$0.00	\$0.00	\$23,889.48
Nila J Haefner	Lot 1, Block 1		655.65			0.00	
101 Pohl Rd			CC=			SY	
Mankato, MN 56001							
01.09.17.408.001	Atwood Terrace	R	3.23	\$0.00	\$0.00	\$0.00	\$0.00
Bradley J & Tiffany M Schaff	Lot 1		9.68		·	0.00	
331 S Redwood Dr			CC=			SY	
Mankato, MN 56001							Not Assessed
01.09.17.408.004	Burgers Addition	R	216.86	\$0.00	\$0.00	\$0.00	\$0.00
Housing & Redev Auth of Mkto	Lot 1					0.00	•
PO Box 3368						SY	
Mankato, MN 56002-3368							Not Assessed

01.09.17.408.005	Burgers Addition	R	69.78	\$2,895.87	\$0.00	\$0.00	\$2,895.87
Owen R & Flynn Joanna S							
Lathrop	Lot 2					0.00	
2004 Hoffman Rd						SY	
Mankato, MN 56001							
01.09.17.408.006	Burgers Addition	R	69.78	\$2,895.87	\$0.00	\$0.00	\$2,895.87
Richard J Wankerl	Lot 3					0.00	
2008 Hoffman Rd						SY	
Mankato, MN 56001							
01.09.17.431.020	Burgers Addition	R	69.78	\$2,895.87	\$0.00	\$0.00	\$2,895.87
Partners for Affordable Hsg	Lot 4					0.00	
151 Good Counsel Dr Ste 130						SY	
Mankato, MN 56001							
01.09.17.431.021	Burgers Addition	R	69.78	\$2,895.87	\$0.00	\$0.00	\$2,895.87
Terrance & Boeke Trish							·
Mahlman	Lot 5					0.00	
2016 Hoffman Rd						SY	
Mankato, MN 56001							
01.09.17.431.022	Burgers Addition	R	69.78	\$2,895.87	\$0.00	\$0.00	\$2,895.87
Brian C & Julie A Haas	Lot 6					0.00	
2020 Hoffman Rd						SY	
Mankato, MN 56001							
01.09.17.431.023	Burgers Addition	R	62.28	\$2,584.62	\$0.00	\$0.00	\$2,584.62
Gregory Milbrath	Lot 7		142.28			0.00	
2024 Hoffman Rd			CC=			SY	
Mankato, MN 56001							
01.09.17.451.001	HI Smiths Addition	R	111.90	\$0.00	\$0.00	\$0.00	\$0.00
Brendan J & Beth Ann D							
Ohalloran	Lot 14		223.80			0.00	
149 Eastwood Dr			REAR=			SY	
Mankato, MN 56001							Not Assessed

01.09.17.452.001	HI Smiths Addition	R	50.00	\$0.00	\$0.00	\$0.00	\$0.00
Paul S Fox	Lot 15		100.00	·		0.00	·
138 Eastwood Dr			REAR=			SY	
Mankato, MN 56001							Not Assessed
01.09.17.452.009	Not Platted	NR	159.06	\$0.00	\$0.00	\$0.00	\$0.00
Hope Interfaith Center	1.77 Acres in West 2 of		239.06			0.00	
114 Pohl Rd	Southeast 4, Section 17		CC=			SY	
Mankato, MN 56001	Township 108 Range 26						Not Assessed
01.09.17.454.006	Meadow View	NR	40.00	\$0.00	\$2,460.00	\$0.00	\$2,460.00
City of Mankato	Holding Pond and Park					0.00	
PO Box 3368	Lot 3, Block 1					SY	
Mankato, MN 56002-3368							
01.09.17.454.035	Nilas Addition	R	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Nila J Haefner	Lot 1, Block 2					0.00	
101 Pohl Rd						SY	
Mankato, MN 56001	Assessed unde	r 99062 - Ag	gency Road				Not Assessed
	Hoffman-Agency						
01.09.17.476.002	Subdivision	NR	422.33	\$0.00	\$25,972.99	\$0.00	\$25,972.99
City of Mkto Economic Devel							
Authority	Excluding Hoffman-					0.00	
PO Box 3368	Agency Subdivision No					SY	
Mankato, MN 56002-3368	2 Lot 1, Block 1						